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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,460	08/03/2001	Uwe Sydon	2001P11177US	1376

7590 04/19/2005

Siemens Corporation
Attn: Elsa Keller, Legal Administrator
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

EXAMINER

ZEWDU, MELESS NMN

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,460

Applicant(s)

SYDON, UWE

Examiner

Meless N Zewdu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12 and 14-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12 and 14-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on 12/13/04.
2. Claims 11 and 13 are cancelled in this amendment.
3. Claims 1-10, 12 and 14-22 are pending in this action.
4. This action is final.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: **it is improperly dated as 01-08-08 (emphasis added).**

Claim Objections

Claim 12 is objected to because of the following informalities: claim 12 is made dependant on claim 11, which is a cancelled claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5-7, 9-13, 15-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rezaiifar et al (6,526,030) in view of Hunte (US 6,665,538 B1).

Regarding claim 1, Rezaiifar teaches a method of changing a physical data rate of an air interface on a per channel basis (abstract, 1-3, col. 9 lines 53-67), the method comprising:

a) providing a plurality of logical communication channels, the plurality of logical communication channels being configured to communicate a signal (abstract, fig. 3-5, col. 7 lines 30-41);

b) providing a control channel that assigns data rates to the plurality of logical channels (col. 9 line 53 thru col. 10 line 17); and

c) changing the data rates of the plurality of logical channels on a per channel basis (fig. 4-6, col. 9 line 53 thru col. 10 line 39, and col. 11 line 66 thru col. 12 line 5).

But, Rezaiifar does not explicitly teach about a control channel including interfered carrier information, as claimed by applicant. However, in a related field of endeavor, Hunte teaches that data rate can be dynamically adapted based on information that

includes carrier interference (see col. 5, lines 8-64). It is to be noted that information about voice/data channel/s between communicating entities and subsequent selection/allocation of a usable channel is made using control/signaling channel/s. Examiner considers the carrier interference information cited in Hunte's reference is exchanged using control channel/s. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Rezaiifar with that of Hunte for the advantage exchanging information that enables a system to opportunistically increase a data transfer rate when conditions allow and retreat to a lesser transfer rate when conditions are more adverse (see col. 5, lines 20-27).

Regarding claim 2, Rezaiifar teaches the method of claim 1, further comprising providing a high data rate channel (abstract, col. 8 lines 5-24).

Regarding claim 5, Rezaiifar teaches the method of claim 1, further characterized in that the plurality of logical communication channels operate at a data rate selected by the control channel (col. 3 line 33-43).

Regarding claim 6, Rezaiifar teaches the method of claim 5, further characterized in that the selected data rate is a multiple of a basic data rate (plurality of data rates) (col. 2 line 33-43).

Regarding claim 7, Rezaiifar teaches the method of claim 1, further characterized in that logical communication channels having a high data rate communicate data information (abstract, col. 8 lines 5-24) and logical communication channels having a low data rate communicate voice information (abstract, col. 8 lines 5-24).

Regarding claim 9, teaches the method of claim 1, further characterized in that, the signal is communicated between a portable telephone and a base station (fig. 8C).

Regarding claim 10, Rezaiifar teaches an air interface (fig. 2 col. 5 lines 35-54) comprising:

at least one logical communication channel configured to communicate a signal (abstract); and

a control channel that assigns a data rate to each of the at least one logical communication channel (col. 9 line 53 thru col. 10 line 17), the control channel being configured to change the data rate assigned to each of the at least one logical communication channel (fig. 4-6, col. 9 line 53 thru col. 10 line 39, and col. 11 line 66 thru col. 12 line 5). But, Rezaiifar does not explicitly teach about changing a data rate based upon signal quality information about data communicated with a signal, as claimed by applicant. However, in a related field of endeavor, Hunte teaches that data rate can be dynamically adapted based upon information that includes carrier interference, which is a signal quality information (see col. 5, lines 8-64). It is to be noted that information about voice/data channel/s between communicating entities and subsequent selection/allocation of a usable channel is made using control/signaling channel/s. Examiner considers the carrier interference information cited in Hunte's reference is exchanged using control channel/s. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Rezaiifar with that of Hunte for the advantage exchanging information that enables a system to opportunistically increase a data transfer rate when conditions

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allow and retreat to a lesser transfer rate when conditions are more adverse (see col. 5, lines 20- 27).

Regarding claim 11, Rezaiifar teaches the air interface of claim 10, further characterized in that the control channel changes the data rate assigned to each of the at least one logical communication channel based upon information about data communicated with the signal (col. 3 lines 34-43).

Regarding claim 12, Rezaiifar teaches the air interface of claim 11, further characterized in that the information about data communicated with the signal comprises data type information (voice and data) (col. 8 lines 5-15).

Regarding claim 13, Rezaiifar teaches the air interface of claim 11, further characterized in that the information about data communicated with the signal comprises signal quality information (col. 2 lines 57-65).

Regarding claim 15, Rezaiifar teaches the air interface of claim 10, further characterized in that the control channel includes interfered carrier information (col. 5 lines 27-32).

Regarding claim 16, Rezaiifar teaches the air interface of claim 10, further characterized in that the control channel uses cyclic redundancy checks (CRC) to determine whether the at least one logical communication channels are disturbed (col. 5 line 64 thru col. 6 line 37).

Regarding claim 17, Rezaiifar teaches a wireless communication system which provides for low data rate services as well as higher data rate services without a

reduction in sensitivity characteristic to switching modulation schemes (abstract, fig. 1),
the communication system comprising:

a communication device capable of receiving and sending communication
signals (#6 fig. 1-2, col. 5 lines 13-34);

a base station capable of receiving and sending communication signals (#4 fig.
1-2, col. 5 lines 13-34); and

an air interface of wireless communications between the communication device
and the base station (#24 fig. 2, col. 5 lines 35-63), the air interface including a control
channel (abstract, fig. 3-4) and a plurality of logical communication channels (abstract,
fig. 3-4, col. 7 lines 30-41), the control channel changing data rates to the plurality of
logical communication channels on a per channel basis (col. 9 line 53 thru col. 10 line
17). But, Rezaiifar does not explicitly teach about changing a data rate based upon
signal quality information about data communicated with a signal, as claimed by
applicant. However, in a related field of endeavor, Hunte teaches that data rate can be
dynamically adapted based upon information that includes carrier interference, which is
a signal quality information (see col. 5, lines 8-64). It is to be noted that information
about voice/data channel/s between communicating entities and subsequent
selection/allocation of a usable channel is made using control/signaling channel/s.
Examiner considers the carrier interference information cited in Hunte's reference is
exchanged using control channel/s. Therefore, it would have been obvious for one of
ordinary skill in the art at the time the invention was made to modify the teaching of
Rezaiifar with that of Hunte for the advantage exchanging information that enables a

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system to opportunistically increase a data transfer rate when conditions allow and retreat to a lesser transfer rate when conditions are more adverse (see col. 5, lines 20-27).

Regarding claim 18, this claim is rejected for the same reason as set forth in claim 2.

Regarding claim 20, this claim is rejected for the same reason as set forth in claim 7.

Claims 3-4, 8-9, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rezaiifar in view of Hunte, as applied to claims 1, 10 and 17 above, and further in view of Sayers et al. (Sayers) (US 6,729,929).

Regarding claim 3, Rezaiifar teaches the method of claim 1, further comprising using a frequency hopping spread spectrum method to transmit the signal over the plurality of logical communication channels (abstract). But, Rezaiifar in view of Hunte does not specifically teach a frequency hopping spread spectrum method.

However, Sayers teaches a frequency hopping spread spectrum method (col. 3 lines 65-67). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the above references with the teaching of the Sayers in order to assign the channel to the mobile terminal with requested rate and to avoid dead-spots.

Regarding claim 14, this claim is rejected for the same reason as set forth in claim 3.

Regarding claim 4, Rezaiifar further teaches the method of claim 1, further characterized in that the control channel operates at the data rate (abstract, col. 3 lines 6-43), thereby using a lowest bandwidth and ensuring best sensitivity. However, Rezaiifar et al. does not specifically teaches the control channel operates at a lowest possible data rate, thereby using a lowest bandwidth and ensuring best sensitivity.

Sayers et al. teaches the control channel operates at a low data rate, (col. 3 lines 44-50). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Rezaiifar et al. with the teaching of the Sayers et al. of control channel with operates at a low data rate in order to utilize most of the channels capacity for physical traffic channels.

Regarding claim 19, this claim is rejected for the same reason as set forth in claim 4.

Regarding claim 8, Rezaiifar teaches the method of claim 7, wherein the high data rate and the low data rate (col. 13 line 46 thru col. 14 line 14). However, Rezaiifar et al. does not specifically teache the high data rate is between 32 k bits/sec and 256 k bits/sec and the low data rate is between 16 k bits/sec and 32 k bits/sec.

Sayers et al. teaches the high data rate is between 32 k bits/sec and 256 k bits/sec (col. 4 lines 14-39) and the low data rate is between 16 k bits/sec and 32 k bits/sec (col. 4 lines 14-39). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Rezaiifar et al. with the teaching of the Sayers et al. of logical channel of data rate in order to provide the mobile terminal with the data rate requesting.

Regarding claim 21, this claim is rejected for the same reason as set forth in claim 8.

2. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rezaiifar in view of Hunte, as applied to claim 17 above, and further in view of Fazel et al. (Fazel) (6,275,506).

Regarding claim 22, but, the above cited references do not explicitly teach about a communication system, wherein the communication device is a personal digital assistant (PDA). However, Fazel teaches a communication device which is a personal digital assistant (PDA) (col. 1 lines 4-15). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the above references with the teaching of Fazel in order to provide customer the choice of wireless device for transmitting and receiving variable data rate.

Response to Arguments

3. Applicant's arguments with respect to claims 1-10, 12 and 14-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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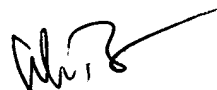
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Meless Zewdu

M. Z.

Examiner

04 March 2005.



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